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ABSTRACT

The high attrition rate of Alaska Native students at the University of Alaska, Fairbanks, was evaluated as an example of the broader issue of the responsiveness of a large bureaucratic institution to an environmental population that is different from it in world view. It was found that the phrasing of the problem as a problem of retention was in itself a major means by which the institution limited its capacity to understand the issue. It was learned that the fundamental conflict was between what is called "the institution's knowledge" and "human knowledge." The institution's knowledge characterizes the relationships between individual members or clients that are governed by institutional considerations. Human knowledge characterizes the relationships between members or clients that are governed by human interpersonal considerations. By framing the problem as a problem of retention, the institution was incapable of perceiving the issue from the point of view of the Alaska Native students. As a further approach to indicate the difference between the two areas of knowledge, attention was directed to what students and faculty offered as explanations of behavior. It was found that Alaska Native students were skeptical regarding the use of analytical categories as explanations of behavior. It is suggested that this is a sophisticated view of a dimension of human behavior not attended to in Western behavioral and social sciences. Attention was also directed to conventions of expression and interpretation of the spoken and written word. Preliminary findings of a classroom experiment designed to increase the amount of human knowledge given to students about the teacher by himself are reported. Additional analysis and a bibliography are appended. (SW)

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HUMAN KNOWLEDGE
AND
THE INSTITUTION'S KNOWLEDGE

Final Report

on

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Communication in Patterns and Retention
in a
Public University

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SUMMARY

The problem of retention in an institution of higher education lies as much in the definition of the problem as in any other factor. Previous research has indicated that the problem of communication between modern bureaucratic institutions and members of non-Western cultural groups can be understood to a considerable extent as a problem in conflict of world view or reality set. More recent research has argued that this difference in reality set is associated with the predominant modes of communication, with the modern bureaucratic institutions showing a strong association with literacy. While the extent and power of Western bureaucratic institutions is well known, it is also well known that these institutions are highly unresponsive to their environments. Some researchers have referred to this unresponsiveness as an institutional incapacity to learn.

This study investigated one instance of a modern bureaucratic institution in communication with a non-Western group. As an instance of the general problem of communication, the high attrition rate of Alaska Native students at the University of Alaska, Fairbanks was studied. It was found that the phrasing of the problem as a problem of retention was in itself a major means by which the institution limited its capacity to understand the issue. It was learned that the fundamental conflict was between what we have called "the institution's knowledge" and "human knowledge." "The institution's knowledge" characterizes the relationships between individual members or clients which are governed by institutional considerations. "Human knowledge" characterizes the relationships between members or clients which are governed by human interpersonal considerations. By framing the problem as a problem of "retention" the institution was incapable of perceiving the issue from the point of view of the affected population, Alaska Native students. It is recommended that what is required is not increasing the involvement of students in the institution but on the contrary, increasing the domain of human knowledge of institutional members.

1.0 Modern institutions and learning

Bureaucratic institutions are the heart of what we think of as the modern world and while we are often fatalistic about some of the less pleasant aspects of modern bureaucracies, there is a general agreement that the expansion of "Western" industrialization, resource development, political systems and values has gone hand in hand with the extension of "Western" bureaucratic systems into worlds and territories formerly thought of as foreign by Western people. Bureaucratic organization has been seen by some thinkers as the key to the development of the modern consciousness throughout the known world (Berger, Berger, and Kellner, 1973).

In the west we have generally been quite sanguine if not sanguinary about the extension of Western bureaucratic institutions throughout the non-Western world, justifying our optimism by the apparent enthusiasm with which these institutions have been accepted by non-Western people on the one hand and by the apparent inevitability of this extension on the other.

There is considerable cause for concern, however, in this worldwide extension of a single world view or form of human consciousness. The lesser concern is the more obvious. Diversity of opinion is a central, foundational aspect of this Western world view and yet its extension throughout the world threatens the freedom of any other non-bureaucratic, non-modern view of reality. The greater concern is more subtle and it is the one this study addresses. It is the problem of institutional learning.

We are now familiar with the extreme sluggishness of Western bureaucratic institutions in learning about the implications to the biosphere of our rapid industrial development. We are much less aware of the internal sluggishness of our institutions in cases where the institution's own values are not being maximized. Argyris and Schon (1974, 1978) have detailed cases such as the one in which a manufacturer of a major product was incapable of learning why this product was a "lemon" because of communicative practices in the internal bureaucracy of the company making the product. It was their claim that in this and similar cases, modern bureaucracies are simply incapable of learning, they are incapable of taking in the information needed from the outside world and processing it in such a way that institutional practices (or institutional behavior if that is not too great an extension of meaning) can change toward a greater responsiveness to the environment.

This myopic institutional closedness has been argued by some as endemic to Western bureaucratic institutions (Argyris and Schon, 1974, 1978; Jantsch and Waddington, 1976). It is this problem we have tried to address in a series of studies.

1.1 Background studies

Beginning in 1976 in collaboration with Suzanne Scollon I have been conducting a series of studies of communication. Our interest in these studies has been to seek an understanding of differences in world view as a problem in communication.

In our first study we examined the community of Fort Chipewyan, Alberta in which two predominant world views, the modern consciousness and the world view of the subarctic rural indigenous population which we called the bush consciousness reside in daily personal and institutional contact (Scollon and Scollon, 1979). In that research we found that over a period of some 200 years, the four languages spoken in the community had come to a structural approximation of each other. We were struck by the power of world view, or as we have called the concept, reality set, to modify the structures of language which had previously been thought to be highly resistant to such shaping. A second concern in that research was then to understand the processes of socialization by which members of a cultural group come to have their reality set and its associated language. This study, undertaken by Suzanne Scollon (in progress), has found that the structures of language used by members of a group are developed in the context of values on interpersonal relationship, or 'face', that certain values on 'face' relationships lead to the habitual use of certain linguistic forms.

A third concern in that research was the inherent problem of speaking of two reality sets in the idiom of only one of them. The mode of literate presentation expected in Western research we felt continually did violence to the non-modern reality set, the bush consciousness. The primary means of presentation for the bush consciousness are person-to-person verbal and non-verbal communication. And so we felt that the literate mode itself represented a strong bias toward the non-personal or the institutional in human communication.

This latter aspect we then pursued in another set of studies on literate and oral means of communication (Scollon and Scollon, 1980, 1981, in press; Scollon, S., 1979; Scollon, R., 1980). It became clear that what we had at first described as a difference between two world views, the modern consciousness and the bush consciousness might be more generally described as a difference between literate and non-literate media of communication with a strong association of literate communication with bureaucratic institutions and oral communication with interpersonal communication.

Waddington has said,

> students of living things, who approach them on their own terms, have to develop types of thinking capable

> of dealing with entities of extreme complexity which yet exhibit global characters of a definite--and therefore in some sense simple--kind (Waddington, 1972: 3).

In this research we have been seeking just such simplifying concepts in an effort to characterize such a highly complex phenomenon as communication between modern institutions and non-modern communities of people.

1.2 Four concurrent studies

In 1979 we then began a set of studies directed at understanding the interface between the institutional and the personal or human, an interface which we felt could also be described as the interface between the literate and the oral. We planned in a series of studies to investigate a large modern public institution, the University of Alaska, from the point of view of its being a bureaucratic institution in communication with an environment which in some cases is nearly maximally different on reality set and communicative values, the Alaska Native community.

For a number of years the high attrition rate of Alaska Native students at the University of Alaska has been perceived as a problem (Kohout and Kleinfeld, 1974; Kleinfeld, 1978). In the past two years two different Chancellors of the University of Alaska, Fairbanks have pointed to this high attrition rate as a significant problem in need of attention. The simplest response has been to regard this problem as a student's problem. Students who withdraw are seen as more impulsive or less emotionally committed to education than other students. They are regarded as lacking in flexibility, and academically rootless (Cutler, 1981). Less negative responses have regarded the problem as one of institutional structures and programs. Efforts have focused on improved academic preparation in the pre-college years (Kleinfeld, 1978) and on improved programs for Alaska Natives at the University of Alaska. All of these responses have seen some degree of success and yet the attrition rate for Alaska Native students has remained high.

Our view as a result of this study is that the problem of "retention" of Alaska Native students has not yet been "solved" because the problem has not yet been conceived in anything but institutional terms. We believe the "problem" to be much more general than the problem of retention of Alaska Native students. We believe that this problem is an instance of what Argyris and Schon (1978) have described as the inability of an institution to learn. The thrust of our studies thus has not been to try to solve this problem but much more generally to see if we could uncover the premises of our institutional action by seeking to understand the points at which the institutional view prevails over any other view. Our previous research has led us to believe that this point

of intersection is in the face-to-face contact of institutional members as institutional members with non-institutional people from the community at large, the clients or would-be members.

We have approached this problem in four studies. In the first of these we have been studying patterns of rhythmic integration of speakers and listeners in face-to-face interaction (R. Scollon, 1981a, b). Our goal in this research is to raise the light on the moment-by-moment processes by which people "hear" and "see" each other and the processes by which they draw interpretations of each other's behavior (R. Scollon, to appear).

In a second study,[1] five faculty members met in a regular seminar for the purposes of examining their teaching in cross-cultural classrooms. Some of their classes were videotaped and together with the project director and a research assistant they studied the role of face-to-face communication in the conduct of cross-cultural teaching (Martz, 1981; S. Scollon, 1981). In a third study begun during the Spring of 1981 we extended this study of face-to-face communication patterns to the study of teaching and learning situations in which some aspect of telecommunications intervenes between the teacher and the student[1] (S. Scollon, 1981b).

These three studies have looked closely at the internal processes of the direct communication between teachers and students. The latter two have focused especially on gatekeeping situations (Erickson, 1976; Erickson and Shultz, 1981). In our use of the term gatekeeping we are referring to any situation in which an institutional member is empowered to make decisions affecting others. This is perhaps the single most characteristic bureaucratic event in which the institution exerts its power over the person of the client or member. Decisions made by gatekeepers affect the total life chances of the person involved in ways that extend far beyond the domain of the institution itself. One's income, one's place of residence, one's social networks, and one's sense of self can all be strongly affected by the outcomes of gatekeeping encounters.

For this reason Erickson and others (Erickson, 1977; Tannen, 1979; Gumpez and Tannen, 1979) have paid especially close attention to the relationship of the institutional and the personal in gatekeeping. Among the findings this body of research has generated, perhaps the most critical for our purposes is that of Erickson and Shultz (1981) that the institutional objectivity of the gatekeeping situation is easily overridden by extra-institutional factors. These personal factors such as co-membership in organizations or groups outside of the institution have the power to override the purely institutional considerations to such an extent that they may be thought of as the primary determinants of life chances in institutional gatekeeping encounters.

On the basis of this research one would be led to propose a restructuring of gatekeeping situations so that someone would always encounter a gatekeeper of like ethnicity or like social membership. As Erickson and Shultz point out, however, institutional factors considerably broader than the single gatekeeping encounter impinge on that particular event so that any recommendation about the gatekeeping encounter must be made within a frame of a broader understanding of institutional structure.

The present study was undertaken beginning in October of 1980 to seek an understanding of that framework. While the study is entitled "Communication Patterns and Retention in a Public University" the intent of the study is not to study the problem of "retention" directly. The intent of this study has been to study why the framing of the problem as a problem of retention may be problematical. And thus my findings speak only indirectly to the "problem of retention." The problem to which this study addresses itself is the problem of the responsiveness of a large bureaucratic institution to an environmental population that is different from it in world view. The high attrition rate of Alaska Native students at the University of Alaska, Fairbanks is an instance of this much broader issue.

2.0 Human^2 knowledge or the institution's knowledge

Martz (1981) has reported that the single most positive characteristic that Alaska Native students spoke of faculty members having was that they were "human." Again and again, Alaska Native students have articulated the importance they place on getting a "human" or personal view of their instructors. The vocabulary in which this is expressed is suggestive of their perception of the problem. Students frequently used the terms "exposed" in speaking of the instructors' revealing personal history or characteristics. The term "exposed" suggests an assumption by students that the faculty member is making an active attempt to conceal this human knowledge. Whatever the underlying assumption, however, there can be no question of the importance Alaska Native students place on getting a real feeling for the human behind the instructor's role.

This may be compared with the observation that whenever students were interviewed about their perceptions of the university or their life at the university they responded in terms of social relationships, living conditions, and the attitudes of the people they need to interact with. This is in marked contrast to faculty members who when questioned in the same way about their perceptions of the university or their life in the university responded in terms of programs, curricula, courses, university policies or structures.

This latter point, it could be argued, only reflects the faculty member's deeper understanding of the institution and perhaps even his or her maturity. It is significant then, we

believe, that when faculty members were asked to speak of the finding of Martz that students highly valued a view of the human behind the institutional role, they spoke in terms of "vulnerability." While intending to speak positively of this quality of allowing a human view of oneself as instructor, instructors nevertheless couched it in the vocabulary of "vulnerability."

In short, then, we have found that Alaska Native students are seeking a human knowledge of their instructors and that their instructors feel vulnerable to the extent they allow the expression of human knowledge. While there are many factors which contribute to students' sense of dissatisfaction as students, this, we believe, is the key to understanding the dissatisfaction of students with the institution itself as well as the key to the unresponsiveness of the institution to Alaska Native students. Our purpose in the remainder of this report is to try to unpack these two concepts of human knowledge and the institution's knowledge.

2.1 The gatekeeping report

During the spring of the 1981 we circulated an interim paper in which it was suggested that it might be fruitful to look at the University of Alaska as a total institution, at least from the point of view of students (R. Scollon, 1981c). It was suggested that because students may perceive their stay at the University of Alaska as a stay in a total institution they might be responding to the well-intentioned actions of institutional gatekeepers such as counselors to keep them in school as a form of coercion. Because the central property of the total institution is its redefinition of the person, students come who respond to the institution as a total institution might come to highly resent this remaking aspect of the institution and prefer to leave as a way of maintaining their own sense of personal and cultural identity. Since the institution has embedded in it the cultural values of European-based society this remaking aspect is felt especially acutely by students from non-Western traditions such as those of Native Alaska.

There were many responses to this paper from both faculty and students. Some of these were volunteered in writing, some were elicited in interviews, and still others were presented orally in a public meeting to discuss this project. Responses characteristically fell out in two groups. There were institutional responses and there were human responses. Institutional responses all came from faculty, whereas all but one human response came from students.

One type of institutional response was as follows: the paper was circulated to deans, directors and department heads throughout the Fairbanks campus and it was made available by word of mouth to faculty members and students (there being, of course, no institutional framework for distribution among students). A memo

accompanied the paper asking that all faculty be informed of the meeting so that those interested could participate. The responses from faculty either came from the deans, directors or department heads who received the report directly without further dissemination or the paper and meeting were "delegated" to a social scientist within that director's division. Faculty attendance at the public meeting was representative, by delegation of authority. Student attendance was self-selected and voluntary.

What is critical in the different response of the two groups to the paper, however, is not the delegation of attendance at the meeting so much as the type of problem people perceived. The student response was nearly unanimous. The student response was that the University of Alaska does feel like a total institution, that the problem of "retention" worded that way fails to consider the personal reasons students may have for being in school as well as for leaving, that they widely sense that the faculty is considerably more concerned with the preservation of the institution and their places in it than with the education of students.

Faculty responses were of a different kind. The sense of "vulnerability" was voiced as follows by one faculty member:

> "Should not the student defer to the teacher? Think, carefully. That is the name of the game."

In another instance the general fatalism of faculty members were voiced as follows:

> "You are touching on gripes of all those who are dissatisfied and not just universities. We all put up with bureaucratic procedures that concentrate on procedures rather than on results, i.e., attendance or grades. This is a shortcoming of all public or just institutions."

There was a very general tendency among faculty to see "the problem" not as a human one; that is, this student's attempt to get an education, or this professor's concern to teach better, but a categorical one; this is the nature of such institutions, this is the sort of issue it is.

And so, at the same meeting we find the students expressing a sense of human need for the institution to recognize their interests and faculty members asking as one did, "How does the concept of a total institution apply to small scale societies?" Or another faculty member questioning the usefulness of the gatekeeping concept because in his field that concept was used in reference to the institutional concern for self-preservation. That students are regularly treated as instances of categories was

brought home unfortunately by one faculty member's frequent references to students as "kids."

In short, faculty response to the preliminary report was academic interest in a problem of the description of structures. Student response was concentrated human interest in the possibility that there might develop a means of their being able to voice their individual and personal concerns. To the issue of whether or not the university represented a total institution in students' minds, faculty responded by asking if the concept was heuristically fruitful while students responded by asking what could be done about it.

2.2 Two worlds

It is, of course, far too simple to suggest that there are two, just two, views of the University of Alaska or of any other bureaucratic institution. What we are juxtaposing is two perceptions that are largely in contrast to each other and yet pervasive enough that they constitute a daily, even moment-by-moment conflict for those who hold both or at least have to live in a world in which both are expressed.

In our work at Fort Chipewyan, Alberta (1979) we argued that the modern consciousness was the reality set or world view of modern bureaucratic society (Berger, Berger, and Kellner, 1973) and that this reality contrasted strikingly with what we referred to as the bush consciousness. The central aspect of the modern consciousness is the compartmentalization of knowledge which reflects and is manifested in bureaucratic structures. In contrast the bush consciousness centers on what we called integrative knowledge, knowledge that is deeply integrated into the personal life of the individual. Thus we felt at Fort Chipewyan that our interest in reporting to bureaucratic structures outside of the community such as the museum which supported us and the general academic community was directly inimical to the notion of knowledge as personally integrated into one's daily life.

In extending this work to our studies of schooling and of literacy (e.g., Scollon and Scollon, 1981), we began to feel as others have (Olson, 1977, 1980; Scribner and Cole, 1978a, 1978b; Scribner, 1979; Ong, 1979, Gumperz, Kaltman and O'Connor, to appear) that the critical distinction was between formally schooled institutional knowledge and informally learned personal knowledge. We also argued that these distinct forms of knowledge are associated with separate reality sets, ways of perceiving the world, processing information, and with different values on communicative styles in face-to-face interaction.

In this study we can now suggest that the human/institutional interface presents the same conflict wherever it occurs, whether that interface is between individuals of different

cultural groups or with an individual's own allegiance to human or institutional goals and values. What we believe we are seeing, then, is not a radical contrast between two worlds, each totally unintelligible to the other, but an intrapersonal conflict between the goals and prerequisites of the institution and one's own.

In this view the conflict in world views between students and faculty is not absolute. Students and faculty members alike perceive the human as a threat to the institutional as well as perceiving the institutional threat to the human. What makes Alaska Native students contrast so strongly with University of Alaska faculty members is the strength of the commitment of these students to the human and of the faculty to the institutional.

2.3 What constitutes an explanation?

As a further way of highlighting the difference between human knowledge and the institution's knowledge, we can look at what students and faculty tend to offer as explanation of behavior, even such behavior as leaving the university without terminal credentials. Students in such discussions offer highly personal motives. These rely heavily on consciously available rationalizations of their own and and other students' behavior. Alaska Native students are quite skeptical of any generalizations about student withdrawal. In long discussions with Alaska Native students about principles of observation and generalization in courses designed to teach these concepts we have found a strong resistance to generalizations about behavior which will attribute to unknown persons the characteristics or motives of known cases. Students in accounting for behavior rely heavily on personal, human knowledge of circumstances which they take prima facie as sufficient explanation of behavior.

In many cases Alaska Native students go beyond their own reliance on such explanation to question the sincerity of anyone offering more analytical generalized accounts of behavior. These are most often regarded as attempts to stereotype or generate negative impressions of the group about which the generalization is made. It is, of course, understandable that Alaska Native students would be very sensitive to the possibility of negative ethnic or cultural stereotyping given the widespread existence of just such stereotyping in their experience. We believe, however, that the issue here goes beyond just the hypersensitivity of a particular ethnic or cultural group. We believe that this skepticism in regard to analysis and generalization is characteristic of the world view which we have first called the bush consciousness (Scollon and Scollon, 1979, 1981).

This characterization of skepticism in regard to analysis and generalization is looked upon by faculty members with a range of attitudes from those who treat it as simple naivete or ingenuousness to those who treat it as evidence of stupidity or even

ineducability. This unfortunately comes as no surprise since it is very much taken to be a part of the mission of higher education to train students in skills of analysis and generalization. To faculty members on the whole this skepticism is not treated as another and viable perspective on behavior but as the problem to be treated by pedagogical means. It is no wonder, then, that students so strongly feel that the university is taking on the restructuring of their world view. It is.

2.4 Another view

If that was all there was to it we could get on with the education of students and not be overly concerned with those on whom the education does not "take." If the problem, however, is understanding the behavior of individuals, neither perspective is wholly sufficient. Since the early days of experimental psychology it has been clear that the introspective evidence offered by a subject is highly suspect if taken at face value. In virtually every field of the behavioral and social sciences, careful steps are taken to avoid accepting statements of respondents at face value on the evidence that these statements are strongly under the influence of the subject's assumptions about the nature of the situation he or she is in. In this the view of faculty members regarding Alaska Native students' reliance on introspective accounts is vindicated.

On the other hand, students' skepticism regarding the use of analytical categories as explanation of behavior shows a sophistication rarely evidenced in the writing of social scientists. It is clear, of course, that the behavior of a category is not the behavior of the individual member of that category. These are behaviors of two different logical types (Bateson, 1979). The behavior of a category will allow the statistical prediction of the behavior of a percentage of individual members of that category. It will never allow the prediction of the behavior of any single individual. To borrow Bateson's example, we can predict that a chain will break at its weakest link but we cannot tell which link that will be until after the fact.

What is critical here is that categorical statements can only be said to be true <u>after the fact</u>. Any statement, however, reliably tested, may be proven wrong by the next instance that comes along. The key here is the temporal status of the behavior one is seeking to explain. If one is seeking to explain how I at this moment decide to undertake the next action, categorical statements are of no value. The individual has no cognitive access to the behavioral categories of the group and thus must use other means to move from moment to moment through the sequence of decisions that we call living.

We suggest that it is this awareness of the constraints of real-time processing that Alaska Native students are using as the

basis for their skepticism of categorical statements. We also suggest that it is not naive at all but actually an awareness of a dimension of human behavior that has all but escaped notice in Western behavioral and social sciences.

2.5 Conversational inference

The area of research generally called conversational inference (Gumperz, 1977a, 1977b, 1978; Gumperz and Tannen, 1979; Tannen, 1979) provides the best use of this mode of analysis in Western social science. Conversational inference studies the processes by which people in contact with each other move inferentially from step to step through an interaction. Linguists have had among the highest success among social scientists in describing the formal structures of a behavioral phenomenon and yet have until recently been totally incapable of saying anything meaningful about how the structures of a grammar are actually realized in the moment-by-moment production of utterances. Accounts have included an odd mixture of spoken interaction and reinforcement. The insight provided by students of conversational inference is that at any point in the stream of interaction speakers and listeners are under the obligation to draw inferences about the meanings being projected by the other and signal both their own projected meanings and their interpretation of the other's meanings. What forces the highly tentative nature of these inferences is the fact that this is carried out under the pressure of real time. People speaking to each other do not have the luxury of the analyst to sit back and carefully study the structure of the utterances heard and spoken but can only draw rather "quick and dirty" inferences and use these as the basis for the next action they must undertake. It is this "quick and dirty" aspect of real time conversational inference that separates it so clearly from the researcher's analytical categories as well as from the communicator's introspection. As has been amply demonstrated by linguists, people have virtually no conscious control over their grammar. By tedious years of instruction people can come to articulate varieties of word classes and even syntactic structures. It is only the specialist in linguistics who can articulate the highly formal nature of these structures. And yet everyone in moving in real time through a conversation relies rapidly and accurately on these structural categories as a basis on which to draw the necessarily "quick and dirty" conversational inferences.

In this view, such a structural category as grammar can neither be said to cause nor to explain the behavior of speakers in a conversation. At most it is a resource that conversationalists use in drawing rapid inferences. Needless to say conversationalists move smoothly through an interaction partly on the basis of and to the extent they share the same, unconsciously held, structural base of inferences. In this sense then, analytical categories, like grammatical structures, are of only two classes of use: as after-the-fact descriptions of what happened in particular

instances or as real time but unconsciously used bases for inferences about the behavior of other individuals. In the first use they are of a reality that is distinctly removed from the moment-to-moment reality of individuals. They are of a different logical type. In the second use, these structures are at the very best an approximation of behavior that holds good only during the current instance, "until further notice."

We would argue then that "the institution's knowledge" we are speaking of is of a logical type that is inherently out of "real" time. "Human knowledge," on the other hand, attends to a reality that is based in "real" time cognitve processing. They are realities of a different logical type. The conflict between these two realities is not in any sense a competition. It is not a conflict, but a confusion of levels of logical typing that we are considering.

2.6 Scores in music and spoken communication

It may be useful here to step aside into another field of discourse for a moment. The role that grammar plays in social interaction is like that of a score in a musical performance. Actually it is even more like the orchestral conventions of, say, Beethoven. As a form of social interaction a lecture is like the conventions for the structure of a classical symphony and this particular lecture with this set of notes is like the actual score of say Beethoven's Eighth Symphony. Elsewhere it has been suggested that this is not a metaphor for social interaction but an actual instance (Sudnow, 1979; Erickson, 1980; Scollon, 1981a).

We can think of a performer's knowledge of music as consisting of general domains of knowledge. The performer knows a body of scores, Beethoven's Fifth, Star Dust or Recuerdos de la Alhambra. The performer also knows classes of scores, the difference between a string quartet, a popular song, a march. Further the performer knows the diction of a particular period, say the European classical period. The performer also knows performance and interpretive conventions for the scores and periods he or she prefers and likes to perform. Finally, the performer knows a wide range of performance skills. These may be thought of as physical skills such as finger dexterity in playing rapid scales and so forth but there is no simple separation of the "physical" skills from the other forms of knowledge (Sudnow, 1979).

Running throughout many musical traditions and quite strong in the Western tradition is the distinction between the performer and the musicologist. This is not a distinction in knowledge as such. There are performers who are highly articulate about the structural and historical characteristics of the music they play. And there are musicologists who are very able performers. The distinction is one of attitude or attention. The performer's attention is on achieving a musical performance while the

musicologist's attention is on achieving a meaningful analysis. It is performance in real time that distinguishes these two streams in Western music.

This displacement of the discourse into music may help highlight several problems in understanding the institution's knowledge and human knowledge. There are two kinds of problems encountered in the misunderstanding between institutional members and Alaska Native students. One problem is a fairly simple problem having to do with the knowledge of "scores." The other is the more difficult one of the difference between performance and analysis.

Students may be assumed in most cases not to know a large body of "scores." That is, students need to study the works of Aristotle or the Alaska Native Claims Settlement Act. This is relatively straightforward and is usually dealt with in ordinary course work. There may be a tendency among faculty, however, to assume knowledge of classes of scores, that is to assume that students know what a lecture is, what a philosophical treatise is, what a legal act is, or what a written essay exam is. At this level it is clear that this sort of knowledge is not nearly so widely shared. The didactic lecture on which so much of university instruction relies may be a totally new genre for all entering students except those from a religious background in which the didactic sermon figures prominently. There is at least the possibility that Astin's (1975) finding that Protestant religious affiliation was a good predictor of academic success is based in part on the role the sermon plays in that religious group. It is relatively unusual for students from rural Alaska to have had extended experience with the didactic lecture before encountering one in the university.

At an even more subtle level, conventions of expression and interpretation of the spoken and written word may vary considerably in students' experience. In these interpretive conventions may lie considerable cultural differences as Heath (1980) has discovered in her work. In one of the communities she studied she found that the written word as in a letter or set of instructions for enrolling a child in school was used as the basis for a communal and oral discussion of the "problem," not as the basis for a formal and literate set of direct responses. And so, students given just the same lectures, videotapes, and exams may be treating them as instances of very different processes of interpretation.

2.7 Tuning in in performance

While these problems of knowledge of scores have been found in this study, they do not form the most difficult problem. There are quite successful programs now operating which directly address the problem of "scores." And we would simply recommend more extended support of these programs. A more difficult problem is in the area of "performance."

In any performance, the performers must make a mutual adjustment to the performance of the others with whom they are "en ensemble." Chapple (1970, 1980) in a series of studies beginning in the pre-World War II period and continuing to the present has argued cogently that hierarchies in institutional structure may be viewed as the outcome of relatively minor asymmetries beginning with the two-party face-to-face interaction. In each pair, he argues, there is a "pace maker" who sets the rhythm of the encounter. In this pair the "pace maker" is the leader. That leader in turn relates in other dyads in which he or she is either the pace maker or not. He describes a kind of pacemaking pecking order in which the leader at the top of the hierarchy sets the pace rhythmically for all who are under him.

This work of Chapple provides us with a way of addressing the human/institutional interface. As the pace maker represents the institution, the non-pacemaker(s) adjust their interpersonal rhythms to the pace maker and in doing so, through quite subtle and unconscious behavior adapt to the institutional rhythm.

While our research in this area is still, unfortunately, highly tentative we can advance the idea here that a fundamental difference between Alaska Native groups and non-Native groups is in the meaning of leadership or more specifically, pacemaking. There is no disagreement about who is the leader in the classroom or in fact in the institutional structure. Both groups assume that the teacher is the leader in the classroom. Our evidence suggests, however, that Alaska Natives regard it as being the role of the leader to tune in to the pace set by the one being "led." The responsibility for achieving "ensemble" lies with the leader, not the follower. It is a notion that more closely approaches the Western jazz tradition than the Western symphonic tradition.

One sort of evidence for this concept of leadership comes out of the microanalysis of rhythm behavior as recorded on videotape. When people communicate they subtly tune in to each other's rhythms (Scollon, 1981a, b). When speakers exchange turns they come in on the tempo established by the preceding speaker. If they then depart from the former speaker's tempo it is only after the initial confirmation of the preceding speaker's tempo. Thus speakers go through an interaction, speaking at their own tempi but always initially confirming the tempi of others.

As in music, however, there are moments of ambiguity, moments at which it is possible to take the preceding speaker's tempo as being either two beats to the measure or three (exactly as in the difference between 3/4 time and 6/8 in musical notation). These moments of ambiguity, as in music, become resolved in the subsequent rhythm of the original speaker.

What we have found is a general tendency of Alaska Native teachers to resolve these points of ambiguity in favor of the

students' rhythm while non-Native teachers resolve them in favor of the teacher's rhythm. In other words we see Alaska Native teachers tuning in rhythmically to the tempo or pace set by students, while non-Native teachers are "conducting" their students to the teacher's tempo. (See 1.2)

Another sort of evidence is from a very different domain of analysis. Direct questions figure very prominently in many teachers' didactic style. Alaska Native students very frequently comment on their discomfort with direct questions. When they were asked how one would more appropriately elicit information, the answer given was that in order to elicit more information one needs to provide information. In the reciprocal case students said that if they do not ask questions in class it is because they have not been provided with enough information to form a base for questioning. We interpret these comments in light of Martz' (1981) findings to mean that Alaska Native students expect faculty members to first provide a base of personal or human knowledge about themselves. Then to allow students to inform the professor about themselves as a basis for continuing information exchange. As one Alaska Native tradition bearer said, "I can only speak to you to the extent I know you."

2.8 A test case

This study was designed so that it would overlap into the beginning of a second academic year. This was so that hypotheses developed in the first year could be tested during the second year. We have now had the opportunity to develop in one case a test of some of the principles suggested above. The course Alaska Native Studies 120, "Cultural Differences in Institutional Settings," was taught in the Fall of 1980 and now again in the Fall of 1981. Because it is a course in which students are primarily Alaska Natives it is a strategic site for developing notions relating to the institutional/personal interface. For our purpose here only two ways in which findings of the study have been incorporated into instruction will be discussed. At this time it is premature to draw more than tentative conclusions.

It was our goal to significantly increase the amount of human knowledge given to students about the teacher by himself and to specifically increase one-on-one access of students to the teacher. In the Fall 1980 course the teacher asked students to fill out a sheet with their names, year in school, major, and home village or city. Students filled out the sheets with just this information and turned them in.

In the Fall 1981 version, the teacher first talked for about 20 or 30 minutes about himself. He told students where he was born, some of the characteristics of the house he grew up in, the surrounding land and how it had been a cranberry patch in his mother's time but he had only known it as a suburban plot with a

lawn and squared off with fences. He then gave a personal history of his education giving actual names of important teachers and the places he had done research. He finally gave the quite personal history by which he had come to be teaching that course at that time.

After this personal history, he asked the students to take out a sheet of paper and write down whatever they felt he needed to know to be able to teach them. The response was in every case that students wrote a lengthy and personal view of their own past and how they came to be in that class. Students included not only highly personal information but information directly relevant to the content of the course.

It was not just the amount of information that was surprising. During the Fall of 1980 course it was discovered around mid-term that some students had a significant misperception of the content and intent of the course. The teacher was able to rectify this during the second half of the semester, but some students had sat through one half of the course not knowing what was going on because of the misperception. In the Fall 1981 version the same misperception showed up in these notes written on the very first day of class. In other words, this format of highly personal knowledge elicited significant information about students' and teacher's perceptions of course content.

The second goal was to increase the one-on-one access of students to the teacher. In the Fall 1981 course all students were asked to get "userids" for the University of Alaska Computing Network to get in touch with each other and with the instructor. As an incentive to get students to actually use this system, the course syllabus and reading list were put in a course mailbox in the message system and this was the only access students had to this crucial information.

While it is difficult to attribute effects directly to the use of the UACN message system, by comparison with the Fall 1980 course in the first four weeks of class the instructor had had more one-on-one communication with students in the class than during the entire Fall 1980 semester. Much but not all of this communication was through the electronic mail system. Even the level of face-to-face meetings in the instructor's office was greater than for the former whole semester. In most cases the office visits were preceded by (1) an initial contact during the class period asking if he would be reading the computer mail; (2) a message or two on that system of a highly "chatty" nature; and (3) a phone call to see if he was in the office.

In summary, while it is too soon to consider total course outcome for the Fall of 1981, it is clear that the establishment of highly personal and human knowledge and providing a non-threatening form of access to the instructor that is neither in class nor in

the instructor's office has led to a much higher sense of involvement with the course for both the students and the instructor. It is our hope that this involvement will pay off in an improved grasp of course contents over the course taught in the Fall of 1980.

3.0 Institutional responsiveness

We can now begin to return to the general question of this research which is: How can modern bureaucratic institutions learn from their environments what they need to know in order to be responsive to those environments? In this particular instance the question is: How can the University of Alaska learn to be responsive to the educational needs of the residents of the State of Alaska. The particular instance of Alaska Native students clearly indicates the current unresponsiveness and we believe that the perceptions of Alaska Native students that the problem lies in the area of the conflict of human knowledge with the institution's knowledge points the way to the solution.

It was suggested above that the conflict between human knowledge and the institution's knowledge is not strictly a conflict between world views but rather a confusion of levels of logical typing. While faculty members are focusing their attention on analytical structures that operate out of "real" time on classes of behaviors, Alaska Native students are focusing their attention on human processes by which individuals make their way from moment to moment through what we call life. We suggest that this latter view of reality is neither wrong nor naive, but in fact points to the problem of institutional unresponsiveness. As an institution the University of Alaska has been seeking an answer to the "problem of retention" of Alaska Native students in terms of after-the-fact, analytical categories. While this framing of "the problem" has met with some initial success it has not been able to break through into the day-to-day world of the Alaska Native student. It has not been able to comprehend the issue from the point of view of the moment-to-moment sense of reality of the student it is seeking to be responsive to.

Students for their part have been seeking a common ground on which to address the problem of their sense of unreality when dealing with institutional structures and expectations. It should be noted that students are most definitely not calling for a 1960's style of institutional relevance. When the institution is unresponsive to a non-institutional public the solution is not to incorporate that public into the institution by such means as putting students on institutional committees, i.e., by turning clients into members. That mechanism extends the scope of the institutional world view to encompass the environment, not to become responsive to it. Alaska Native students are asking the University of Alaska to enter into a human and real-time

relationship with them, not with them as a class, Alaska Native students, but with them as individuals.

Our research leads us to believe that the only way that modern institutions such as the University of Alaska can become responsive to their environments is to acknowledge and exploit the institutional/human interface that each member negotiates in each institutional act. In the phrasing of the students, we must constantly "expose" ourselves to the human and non-institutional. In the phrasing of the faculty we must allow ourselves to become vulnerable. Institutional invulnerability is the mark of institutional unresponsiveness.

3.1 A practical suggestion

There is a longstanding tradition in American universities that faculty time should be divided among instruction, research, and public service. The order of importance of these three elements varies as well as the percentage of faculty time devoted to each. In land grant universities such as the University of Alaska responsiveness to public needs is mandated. I would argue that public service, in fact, is the most productive means by which faculty members can as institutional members directly engage the non-university public. Public service gives faculty members the direct, human knowledge of the world environing the university as an institution and in doing so places them in the best possible position to undergo the critical institutional learning.

The human knowledge gained in public service then becomes a fruitful source of questions governing the faculty member's research. The research in turn informs the instructional portion of the faculty member's time.

Our research suggests that a direct and practical means of increasing the institutional responsiveness of the University of Alaska is to place public service in the lead in the organization of faculty members' institutional activities.

Footnote:

[1]Please see acknowledgements in the Appendix for details on the support of these studies.

[2]It is with some misgivings that I have used the terms "human knowledge" and "the institution's knowledge." In one earlier version I used "personal" knowledge and "institutional" knowledge. That phrasing, however, suggested a parallelism between the terms which this report argues against. The two knowledges and their concomitant modes of learning are of different logical types. The institution's knowledge is that held by the institution independently of the particular humans filling institutional slots. On the other hand human knowledge is that held by an institutional

member or client as a human being independently of his or her involvement with the relevant institution. Other terms which occurred to me were "natural" and "vernacular." Those terms, however, I thought would suggest other concepts not directly related to the argument.

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APPENDIX

This appendix includes comments and materials that are important in understanding the nature of this research but would have delayed the presentation in the main body of the report.

A note on method

It might be asked where one looks for evidence of differences in world view or reality set and the answer, unfortunately, is everywhere. Anthropologists have generally felt that for such a broadly-based concept as reality set only the method of participant-observation will give the researcher access to a wide enough sampling of instances across a varied enough range of events, roles, and cultural institutions to give any confidence in the validity of the concept. Further, anthropologists have generally insisted on a comparative basis that cuts across cultural groups and so ties one's analytical concepts not to just the group studied but to groups of like category.

In this sense this study has used the method of participant-observation. Within the University of Alaska we have sampled classrooms in both lecture and discussion formats. We have sampled face-to-face meetings between faculty and students both in and out of classes. We have both observed these settings and interviewed faculty and students about them. We have used written interview protocols, tape recorded interviews, and particularly playback of videotapes to faculty and students of classroom situations. We have monitored a collection of printed materials such as university catalogs, admissions forms, the residence hall policy handbook, campus newspapers, faculty/staff newsletters and the Board of Regents' policy statements. We have collected materials from outside the university such as articles in local papers regarding the university. We have monitored both printed and spoken public statements by university officials regarding university policy and attended innumerable internal committee meetings intended to develop or affect those policies. We have reviewed the existing research literature pertaining to issues of University of Alaska Native enrollments and graduation. As a way of getting direct responses from students and faculty, we have circulated a paper (R. Scollon, 1981c) on a preliminary stage of this research and held a public meeting to discuss these ideas.

During this period we have had the assistance of three research assistants, two of them Alaska Native students themselves, who have conducted interviews of faculty and students and contributed directly to the formation of the general concepts in this study.

And still there is an inherent and central problem with this participant-observation. As usually conceived by anthropologists

(with some important exceptions such as published in Hymes, 1974), participant-observation assumes that one will observe and the central problem is participation. The observer is assumed to come from somewhere outside of the group being observed with the primary responsibility for reportage being back to that originating group. It is the observer's problem to achieve sufficient access to the group being observed and so research methodology often stresses ways of achieving "rapport," or some sense that one is genuinely entering into the observed group.

In this case, however, the study is a study of the institution of the researcher. Access is no problem. What becomes a problem is observation. As a professor one is a "native" of the group being studied and is therefore in an extremely suspect position in the articulation of anything but the "native" view.

Further compounding this problem is that other members of the group also have views which are sometimes in competition with our observations. The central methodological issue we have faced in this study, then, is gaining some confidence that our observations are genuinely going beyond the institutional view and are genuinely representative of the "other" world view, in this case, that of Alaska Native students.

This problem is further and greatly compounded by a characteristic difference in the two world views under consideration. It is characteristic of the Western, institutional, bureaucratic world view to view human behavior in terms of categories and generalizations about those categories. This characteristic is so fundamental an aspect of this world view that we tend to regard it as fundamental to human intelligence. We would characterize the world view held by many Alaska Natives as being highly skeptical of categorization and the consequent generalizations.

And so in trying to arrive at generalizations about a category of student we find students frequently taking exception to the generalizations being made. We would argue that it is simply paradoxical and not amenable to direct solution to determine whether these instances disprove the generalization or whether these instances demonstrate the generalization that Alaska Native students are highly skeptical of generalization.

So in support of our generalizations we offer two kinds of evidence beyond the analysis of the phenomena we have observed. The first is comparative. During the course of this study we have worked as consultants for the other two institutions of higher education in the State of Alaska, Alaska Pacific University and Sheldon Jackson College. In these cases we have been in the position of outside observers of these institutions with reportage responsibility to agencies outside of the State of Alaska. In these instances therefore our observations are much closer in

character to those traditionally obtained by anthropologists doing participant-observation.

While the overall goals and missions of these institutions may be said to be higher education, the intent of the boards of directors are reasonably different varying from the University of Alaska's land grant college mandate of providing services to the public of the state to Sheldon Jackson's commitment to religious goals of fundamentalist Protestant values. Our observations in these cases lead us to believe that the issue we are addressing of the responsiveness of an institution to its environing community is substantially the same issue in all three cases and that this comparative base allows us to speak with considerable confidence of the situation in which we have made our primary observations.

The second kind of support we offer for the validity of our generalizations is the large number of students for whom they simply "ring true." The ultimate test of the description of a world view after all is that it appear to be the "world as usual" to the holder of that view. We would argue that while this particular form of presentation in an extended essay is wholly inimical to the world view we are seeking to describe, it does ring true for a significantly large group of Alaska Native students and non-students.

Participants

Throughout this study I have worked collaboratively with Suzanne B. K. Scollon in integrating this project with the others we have been concurrently conducting. For the period of February 1981 to May 1981 two graduate assistants, Nita Towarak and Dawn Weyiouanna, worked on this project. As students they were able to conduct interviews of both faculty and students from a point of view impossible for faculty researchers to encompass.

The Professional Development Seminar met from Fall 1980 through Spring 1981. Suzanne B. K. Scollon was the coordinator of that project and Cecilia Martz was the research assistant. The faculty participants in addition to the author were Michael Gaffney, Alaska Native Studies Program; Howard Van Ness, Division of Instructional Services, School of Education; Ray Barnhardt, Center for Cross-Cultural Studies; and Dennis Demmert, Staff Assistant to the President and the Alaska Native Studies Program.

All of the students in our courses have granted their permission and many participated substantially in the Professional Development Seminar by agreeing to discuss the teaching and videotapes with both the research assistant and the faculty member from whom they took the course. Many other students were also interviewed by Towarak and Weyiouanna. It is out of concern for confidentiality that we do not mention them by name.

The research group studying rhythm consisted of the author, Suzanne B. K. Scollon, Carol Barnhardt, Bob Maguire, Meryl Siegel, and Cecilia Martz. Fred Erickson participated during the summer of 1981.

Acknowledgements

In addition to the people mentioned above, many people have been generous with their time and have provided important insights in this research. All of the participants mentioned above are to be thanked for the ideas they have stimulated but are, of course, not to be held responsible for my presentation of those ideas here. In addition many faculty members provided specific comments on the preliminary paper and report disseminated in the Spring of 1981. Gerald McBeath, Judy Kleinfeld, Robert Smith, Joe Gross, Chris Lambert, and Sue McHenry provided important insights and critical commentary.

The Professional Development Seminar was supported by a professional development grant from the Andrew Mellon Foundation. We wish to thank Vice Chancellor F. Lawrence Bennett for providing us with support for that seminar.

Our research on telecommunications has been supported by a contract to Suzanne B. K. Scollon from the University of Alaska Instructional Telecommunications Consortium. We wish to thank the Director, Jane Demmert, for her support of this research.

Dissemination

A central concern of this study has been the problem of reportage. While it is important for us to report to the agencies supporting this research and to academic colleagues throughout the country, it is of central importance for us to report to the community of professionals and students of the University of Alaska itself. It is for this reason that we have chosen to prepare this report as a general report on the whole research project, not just on the portion of the research funded by the National Institute of Education.

The outcomes of the Professional Development Seminar are being written up in a joint report by the participants which will be distributed to colleagues in the University of Alaska community.

A shortened version of the preliminary report "Gatekeeping: Access or Retention" will be presented at the annual meetings of the American Anthropological Association in December 1981. Suzanne B. K. Scollon has presented a paper entitled "Professional Development Seminar: A Model for Making Higher Education More Culturally Sensitive" at the Third Annual Conference at the National Association for Asian and Pacific American Education in April 1981.

She will present another paper entitled "The Student-Teacher Role in Mediated Instruction" at the annual meetings of the American Anthropological Association in December 1981.

Finally, in the Fall of 1981 we have begun a project supported by the Center for Cross-Cultural Studies and the University of Alaska Instructional Telecommunications Consortium to produce a videotape and other materials designed for orientation of present and incoming new faculty members of the University of Alaska. It is the purpose of this project to present the findings of this research in as direct a way as possible to other members of the institution.